

Application No. 10/646,443
Amendment "A" and Response dated November 23, 2005
Reply to Office Action mailed November 1, 2005

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A kit for use in bleaching and desensitizing a person's teeth, comprising:

at least one substantially solid dental bleaching composition having a tray-like configuration and comprising at least one dental bleaching agent and at least one tooth adhesion agent having increased adhesiveness to teeth when said dental bleaching composition is moistened by saliva or water; and

at least one substantially solid dental desensitizing composition having a tray-like configuration and comprising at least one dental desensitizing agent and at least one tooth adhesion agent having increased adhesiveness to teeth when said desensitizing composition is moistened by saliva or water.

at least one of the dental bleaching composition or dental desensitizing composition having a rigidity so as to maintain itself in the tray-like configuration absent external support.

2. (Original) A kit as defined in claim 1, at least one of said dental bleaching composition or said desensitizing composition being initially horseshoe shaped prior to use so as to at least approximately conform to a person's dental arch with minimal longitudinal shaping.

3. (Original) A kit as defined in claim 1, at least one of said dental bleaching composition or said desensitizing composition having a longitudinal curvature that is less than the curvature of a person's dental arch prior to use so that additional longitudinal curving is required when said bleaching or desensitizing composition is placed over a person's teeth.

4. (Original) A kit as defined in claim 1, at least one of said dental bleaching composition or said desensitizing composition having a substantially straight longitudinal profile prior to use so that longitudinal curving is required when said bleaching or desensitizing composition is placed over a person's teeth.

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5. (Original) A kit as defined in claim 1, at least a portion of said trough of at least one of said dental bleaching composition or said desensitizing composition having an approximate U-shaped cross section.

6. (Original) A kit as defined in claim 1, at least a portion of said trough at least one of said dental bleaching composition or said desensitizing composition having an approximate V-shaped cross section.

7. (Original) A kit as defined in claim 1, at least a portion of said trough at least one of said dental bleaching composition or said desensitizing composition having an approximate L-shaped cross section.

8. (Original) A kit as defined in claim 1, at least a portion of said trough at least one of said dental bleaching composition or said desensitizing composition having approximately a rectangular or trapezoidal cross section.

9. (Original) A kit as defined in claim 1, said dental bleaching agent comprising at least one of carbamide peroxide, metal peroxide, percarbonate, perborate, peroxy acid, peroxy acid salt, chlorite, or hypochlorite.

10. (Original) A kit as defined in claim 1, said dental bleaching agent having a concentration in a range of about 5% to about 80% by weight of said dental bleaching composition.

11. (Original) A kit as defined in claim 1, said dental bleaching agent having a concentration in a range of about 10% to about 60% by weight of said dental bleaching composition.

12. (Original) A kit as defined in claim 1, said dental bleaching agent having a concentration in a range of about 20% to about 50% by weight of said dental bleaching composition.

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13. (Currently Amended) A kit as defined in claim 1, said dental desensitizing agent comprising at least one of potassium nitrate, other potassium salts salt, citric acid, citrates citrate, strontium chloride, sodium fluoride, or stannous fluoride.

14. (Original) A kit as defined in claim 1, said dental desensitizing agent having a concentration in a range of about 0.01% to about 50% by weight of said desensitizing composition.

15. (Original) A kit as defined in claim 1, said dental desensitizing agent having a concentration in a range of about 0.5% to about 25% by weight of said desensitizing composition.

16. (Original) A kit as defined in claim 1, said dental desensitizing agent having a concentration in a range of about 0.1% to about 10% by weight of said desensitizing composition.

17. (Currently Amended) A kit as defined in claim 1, said tooth adhesion agent in at least one of said dental bleaching composition or said dental desensitizing composition comprising polyvinyl pyrrolidone.

18. (Currently Amended) A kit as defined in claim 1, said tooth adhesion agent in at least one of said dental bleaching composition or said dental desensitizing composition comprising at least one of carboxypolyethylene, polyethylene oxide, polyacrylic acid, copolymer of polyacrylic acid, polyacrylate, polyacrylamide, copolymer of polyacrylic acid and polyacrylamide, PVP-vinyl acetate copolymer, carboxymethylcellulose, carboxypropylcellulose, polysaccharide gum, or protein.

19. (Currently Amended) A kit as defined in claim 1, said tooth adhesion agent in at least one of said dental bleaching composition or said dental desensitizing composition having a concentration in a range of about 10% to about 90% by weight of said bleaching composition or said desensitizing composition.

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20. (Currently Amended) A kit as defined in claim 1, said tooth adhesion agent in at least one of said dental bleaching composition or said dental desensitizing composition having a concentration in a range of about 20% to about 80% by weight of said bleaching composition or said desensitizing composition.

21. (Currently Amended) A kit as defined in claim 1, said tooth adhesion agent in at least one of said dental bleaching composition or said dental desensitizing composition having a concentration in a range of about 40% to about 75% by weight of said bleaching composition or said desensitizing composition.

22. (Original) A kit as defined in claim 1, wherein at least one of said dental bleaching composition or said desensitizing composition is sized and configured so as to approximately terminate at or near a person's gingival margin when said dental bleaching composition or said dental desensitizing composition is in use.

23. (Original) A kit as defined in claim 1, wherein at least one of said bleaching composition or said desensitizing composition is contained within a sealed package prior to use.

24. (Original) A kit as defined in claim 1, further comprising a barrier layer comprising a moisture-resistant material adjacent to an outer surface of at least one of said bleaching composition or said desensitizing composition that protects said bleaching or desensitizing composition from saliva or moisture when in use.

25. (Original) A kit as defined in claim 24, said barrier layer being flexible so that it will readily conform to the shape of a person's teeth when in use.

26. (Original) A kit as defined in claim 24, said barrier layer comprising at least one polyolefin.

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27. (Original) A kit as defined in claim 26, said polyolefin comprising at least one of polyethylene, high density polyethylene, low density polyethylene, ultra-low density polyethylene, polypropylene, or polytetrafluoroethylene.

28. (Original) A kit as defined in claim 24, said barrier layer comprising at least one of wax, metal foil, paraffin, ethylene-vinyl acetate copolymer, ethylene-vinyl alcohol copolymer, polycaprolactone, polyester, polycarbonate, polyurethane, polyamide, or polyesteramide.

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29. (Currently Amended) A kit for use in bleaching and desensitizing a person's teeth, comprising:

at least one dental bleaching device that comprises:

a first barrier layer comprising a moisture-resistant material and having a tray-like configuration; and

a bleaching layer adjacent said first barrier layer comprising a substantially solid dental bleaching composition comprising at least one dental bleaching agent and at least one tooth adhesion agent having increased adhesiveness to teeth when said bleaching layer is moistened by saliva or water; and

at least one dental desensitizing device that comprises:

a second barrier layer comprising a moisture-resistant material and having a tray-like configuration; and

a desensitizing layer adjacent said second barrier layer comprising a substantially solid dental desensitizing composition comprising at least one dental desensitizing agent and at least one tooth adhesion agent having increased adhesiveness to teeth when said dental desensitizing layer is moistened by saliva or water,

at least one of said bleaching layer or said desensitizing layer being in the shape of a dental tray and having a rigidity so as to at least partially contribute to maintaining said dental bleaching device and/or said dental desensitizing device in the tray-like configuration prior to placing said dental bleaching device and/or said dental desensitizing device over a person's teeth.

30. (Original) A kit as defined in claim 29, at least one of said first or second barrier layers being initially horseshoe shaped prior to use so as to at least approximately conform to a person's dental arch with minimal longitudinal shaping.

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31. (Original) A kit as defined in claim 29, at least one of said first or second barrier layers having a longitudinal curvature that is less than the curvature of a person's dental arch prior to use so that additional longitudinal curving is required when said dental bleaching device or said dental desensitizing device is placed over a person's teeth.

32. (Original) A kit as defined in claim 29, at least one of said first or second barrier layers having a substantially straight longitudinal profile prior to use so that longitudinal curving is required when said dental bleaching composition or said dental desensitizing composition is placed over a person's teeth.

33. (Original) A kit as defined in claim 29, at least a portion of said trough of at least one of said first or second barrier layers having an approximate U-shaped cross section.

34. (Original) A kit as defined in claim 29, at least a portion of said trough at least one of said first or second barrier layers having an approximate V-shaped cross section.

35. (Original) A kit as defined in claim 29, at least a portion of said trough at least one of said first or second barrier layers having an approximate L-shaped cross section.

36. (Original) A kit as defined in claim 29, at least a portion of said trough at least one of said first or second barrier layers having an approximately rectangular or trapezoidal cross section.

37. (Original) A kit as defined in claim 29, said dental bleaching agent comprising at least one of carbamide peroxide, metal peroxide, percarbonate, perborate, peroxy acid, peroxy acid salt, chlorite, or hypochlorite.

38. (Original) A kit as defined in claim 29, said desensitizing agent comprising at least one of potassium nitrate, other potassium salts, citric acid, citrates, strontium chloride, sodium fluoride, or stannous fluoride.

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39. (Currently Amended) A kit as defined in claim 29, said tooth adhesion agent in at least one of said dental bleaching composition or said dental desensitizing composition comprising polyvinyl pyrrolidone.

40. (Currently Amended) A kit as defined in claim 29, said tooth adhesion agent in at least one of said dental bleaching composition or said dental desensitizing composition comprising at least one of carboxypolymethylene, polyethylene oxide, polyacrylic acid, copolymer of polyacrylic acid, polyacrylate, polyacrylamide, copolymer of polyacrylic acid and polyacrylamide, PVP-vinyl acetate copolymer, carboxymethylcellulose, carboxypropylcellulose, polysaccharide gum, or protein.

41. (Original) A kit as defined in claim 29, wherein at least one of said first or second barrier layers is sized and configured so as to approximately terminate at or near a person's gingival margin when said dental bleaching device or said dental desensitizing device is in use.

42. (Original) A kit as defined in claim 29, wherein at least one of said dental bleaching device or said dental desensitizing device is contained within a sealed package prior to use.

43. (Original) A kit as defined in claim 29, at least one of said first or second barrier layers being flexible so that it will readily conform to the shape of a person's teeth when in use.

44. (Original) A kit as defined in claim 29, at least one of said first or second barrier layers comprising at least one polyolefin.

45. (Original) A kit as defined in claim 29, at least one of said first or second barrier layers comprising at least one of wax, metal foil, paraffin, ethylene-vinyl acetate copolymer, ethylene-vinyl alcohol copolymer, polycaprolactone, polyester, polycarbonate, polyurethane, polyamide, or polyesteramide.

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46. (Currently Amended) A method for bleaching and desensitizing a person's teeth, comprising:

(1) placing a substantially solid dental bleaching composition having a tray-like configuration over the person's teeth for a desired period of time, said dental bleaching composition having a rigidity so as to maintain itself in the tray-like configuration absent external support, said bleaching composition comprising:

at least one dental bleaching agent; and

at least one tooth adhesion agent having increased adhesiveness to teeth when said bleaching composition is moistened by saliva or water;

(2) removing said dental bleaching composition;

(3) placing a substantially solid dental desensitizing composition having a tray-like configuration over the person's teeth for a desired period of time, said desensitizing composition comprising:

at least one dental desensitizing agent; and

at least one tooth adhesion agent having increased adhesiveness to teeth when said dental desensitizing composition is moistened by saliva or water; and

(4) removing said dental desensitizing composition.

47. (Original) A method as defined in claim 46, wherein acts (1) and (2) are performed prior to acts (3) and (4).

48. (Original) A method as defined in claim 46, wherein acts (3) and (4) are performed prior to acts (1) and (2).

49. (Original) A method as defined in claim 46, at least one of said dental bleaching composition or said dental desensitizing composition further comprising a moisture-resistant barrier layer adjacent thereto.

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50. (Original) A method as defined in claim 49, said barrier layer being applied to said at least one dental bleaching composition or said dental desensitizing composition immediately prior to placing said dental bleaching composition or said dental desensitizing composition over the person's teeth.

51. (Original) A method as defined in claim 49, said barrier layer being attached to said at least one dental bleaching composition or said dental desensitizing composition during manufacture of said dental bleaching composition or said dental desensitizing composition.